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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,344

02/14/2006

Markus Bold

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2561

22850

7590

06/25/2009

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ALEXANDRIA, VA 22314

EXAMINER

KOSACK, JOSEPH R

ART UNIT

PAPER NUMBER

1626

NOTIFICATION DATE

DELIVERY MODE

06/25/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/568,344	Applicant(s) BOLD ET AL.	
	Examiner Joseph R. Kosack	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-41 is/are pending in the application.
- 4a) Of the above claim(s) 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-21 and 23-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/15/06 & 8/16/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 19-41 are pending in the instant application.

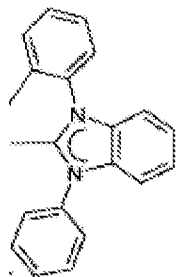
Election/Restrictions

Applicant's election with traverse of Group II (claims 19-41 in part) along with an election of species in the reply filed on February 27, 2009 is acknowledged. The traversal is on the ground(s) that the compounds have a constant core structure. This is not found persuasive because there are various numbers of structures for the carbene ligand. Therefore, the fact that a generic carbene is attached to a metal ion is not enough to rise to the level of a linking special technical feature.

The requirement is still deemed proper and is therefore made FINAL. However, the Examiner has decided to expand the Applicant's elected group to include all



compounds where n is at least 1 and each carbene ligand is either -



, where the rings may be optionally substituted. The remaining subject

matter from claims 19-21 and 23-41, along with claim 22 in full, is withdrawn from

further consideration by the Examiner under 37 CFR 1.142(b) as being drawn to a non-elected invention.

Priority

The claim to priority as a 371 filing of PCT/EP04/09269 filed on August 18, 2004, which claims benefit of DE 103 38 550.9 filed on August 19, 2003 is granted with respect to the PCT application and is acknowledged with respect to the DE application.

Information Disclosure Statement

The Information Disclosure Statements filed on May 15, 2006 and August 16, 2007 have been considered by the Examiner.

Claim Objections

Claims 19-21 and 23-41 are objected to for containing elected and non-elected subject matter. The elected subject matter has been identified above.

Claim Rejections - 35 USC § 102

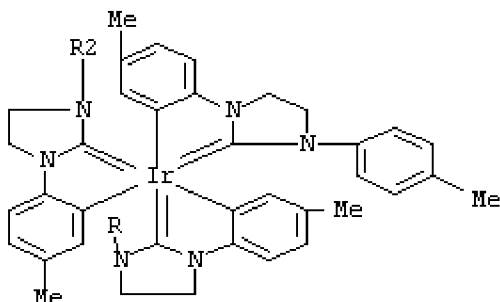
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 27-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Hitchcock et al. (*Journal of Organometallic Chemistry*, 1982, C26-C30).

Hitchcock et al. teaches a complex of the formula



, where R and R2 are tolyl. This reads on the claims where M1 is Ir, m is 0, o is), Y3 is aryl, Y1 and Y2 form a two carbon atom bridge, R1 and R2 form a 4 carbon atom bridge, p is 0, and q is 0. See page C27, Figure 1. Hitchcock et al. also teaches the method of production. See Scheme 2, page C29.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

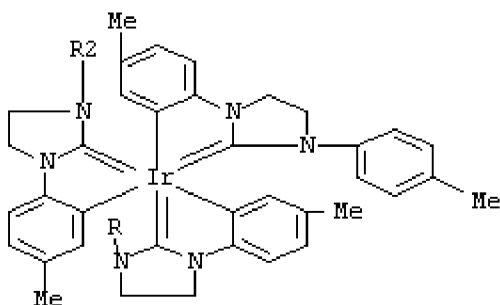
The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 19-21 and 23-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hitchcock et al. in view of Thompson et al. (US PG PUB 2002/0034656).

Hitchcock et al. teaches a complex of the formula



, where R and R2 are tolyl. This reads on the compounds of the claims where, for example with the structure of claim 27, M1 is Ir, m is 0, o is), Y3 is aryl, Y1 and Y2 form a two carbon atom bridge, R1 and R2 form a 4 carbon atom bridge, p is 0, and q is 0. See page C27, Figure 1. Hitchcock et al. also teaches the method of production. See Scheme 2, page C29.

Hitchcock et al. do not teach where the compound is used in an OLED or an OLED using device, nor where the compound is in a light-emitting layer.

Thompson et al. teach that the class of compounds, namely Ir(III) coordinated to three ligands where the connections are through two different cycles on each ligand, are light-emitting compounds and can be used as OLEDs. See page 3, paragraph 23. Therefore, the person of ordinary skill in the art would be motivated to try the iridium(III) complex of Hitchcock et al. with a reasonable expectation of success as a light-emitting compound for an OLED as many other compounds of similar structure have this utility. Additionally, one of ordinary skill in the OLED art would envision using the claimed OLED in devices such as lighting units, televisions, information signs, etc...

Hence, the claims are *prima facie* obvious over the prior art.

Conclusion

Claims 19-21 and 23-41 are rejected. Claims 19-21 and 23-41 are objected to.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph R. Kosack whose telephone number is (571)272-5575. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571)-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph R Kosack/
Examiner, Art Unit 1626

/REI-TSANG SHIAO /
Primary Examiner, Art Unit 1626